

WHAT IS CLAIMED:

1. Plate-like functional component in the form of a gate
plate of an automatic gear shift mechanism with locking gate,
having engagement holes for engagement elements which kinetically
5 interact with the functional component, wherein the functional
component comprises, in sandwich form, at least three stamped
parts, which bear flat against one another, are unreleasably
connected to one another and each have at least two engagement
10 holes for engagement elements which kinetically interact with the
functional component, the engagement holes in the stamped parts
being arranged congruently with respect to one another, at least
one of these holes, in a middle stamped part, having a hole wall
which is provided with an elastomeric plastic cover.

2. Functional component according to Claim 1, wherein the
15 plastic cover is formed from plastic borders which have been
clicked into place or have been secured in undercuts or cutouts
of the middle stamped part and surround a hole edge.

3. Functional component according to Claim 1, wherein the
stamped parts are riveted, soldered or welded together.

4. Functional component according to Claim 1, wherein the plastic cover is formed by injection-moulding plastic around a hole edge.

5. Functional component according to Claim 4, wherein connecting webs lead from the injection-moulded plastic around the hole edge, which webs run on a base surface of the middle stamped part and consist of the injection-moulding compound and from which plug-in domes, which project plug-in domes project from the base surface, and are formed out at certain points on the webs, and wherein correspondingly dimensioned passage holes, into which the plug-in domes are fitted, are formed on the two outer stamped parts, congruently with respect to the plug-in domes.

6. Functional component according to Claim 5, wherein the passage holes at the location of the plug-in domes are also formed on the middle stamped part, and wherein the plug-in domes and/or the connecting webs belonging to one side of the middle stamped part are joined integrally to the plug-in domes and/or the connecting webs belonging to the other side via the passage holes.

7. Functional component according to Claim 5, wherein, in the plugged-in position, the plug-in domes project out of the

passage holes of the outer stamped parts and bear against the outer sides of the outer stamped parts, which are remote from the middle stamped part, by means of a flat head which is wider than the dimension of the passage holes.

5 8. Functional component according to Claim 4, wherein spacer lugs are formed from a material which is harder than the injection-moulding material on the inner sides, of the outer stamped parts which face towards the middle stamped part.

10 9. Method for producing a plate-like functional component in the form of a gate plate of an automatic gear shift mechanism with locking gate, having engagement holes for engagement elements which kinetically interact with the functional component, wherein the functional component comprises, in sandwich form, at least three stamped parts, which bear flat
15 against one another, are unreleasably connected to one another and each have at least two engagement holes for engagement elements which kinetically interact with the functional component, the engagement holes in the stamped parts being arranged congruently with respect to one another, at least one
20 of these holes, in a middle stamped part, having a hole wall which is provided with an elastomeric plastic cover,

said method comprising:

stamping three smaller individual metal sheets out of a larger metal sheet, each individual metal sheet having at least two engagement holes for engagement elements which kinetically interact with the functional component,

5 placing the individual metal sheets against one another in a sandwich structure with corresponding engagement holes in each of the individual stamped metal sheets congruent with one another,

10 providing a hole wall of at least one of the engagement holes in the middle stamped part with an elastomeric plastic cover, before the individual sheets are placed against one another, and

non-detachably connecting the three individual metal sheets together after they have been placed against one another.

15 10. Method according to Claim 9, wherein the connecting of the individual metal stamped sheets includes one of riveting, soldering and welding.

20 11. Method according to Claim 9, wherein the plastic cover used is a plastic border which surrounds the hole edge and is clicked into place at the hole edge or is secured in undercuts or cutouts of the middle stamped part.

12. Method according to Claim 9, wherein the plastic cover is produced by injection-moulding plastic around the hole edge

13. Method according to Claim 12, wherein while the plastic is being injection-moulded around the hole edge, connecting webs which run on a base surface of the middle stamped sheet and plug-in domes at certain points of the webs which project from the base surface are also injection-moulded on,

wherein correspondingly dimensioned passage holes are stamped out from the two outer stamped metal sheets congruently with respect to the plug-in domes and preferably at the same time as the production of the stamped parts, and

wherein the plug-in domes of the middle stamped metal sheet are fitted into the passage holes in the outer stamped metal sheets.

14. Method according to Claim 13, wherein passage holes are also stamped out of the middle stamped metal sheet at the location of the plug-in domes before the domes are formed, and

wherein the plug-in domes and/or the connecting webs belonging to one side of the middle stamped metal sheet are integrally connected to the plug-in domes and/or the connecting webs belonging to the other side via the passage holes during the injection-moulding operation.

15. Method according to Claim 13, wherein the plug-in domes which project out of the passage holes in the outer stamped metal sheets in the plugged-in position are partially melted at their ends and are pressed onto the outer sides of the outer stamped parts, which are remote from the middle stamped metal sheet , so as to form a flat head which is wider than the dimension of the passage holes .

16. Method according to Claim 12, wherein spacer lugs are pressed out of the middle stamped metal sheet on both sides and/or spacer lugs facing towards the middle stamped metal sheet are pressed out of the outer stamped metal sheet.

17. Method according to Claim 13, wherein spacer lugs are pressed out of the middle stamped metal sheet on both sides and/or spacer lugs facing towards the middle stamped metal sheet are pressed out of the outer stamped metal sheets.

18. Method according to Claim 14, wherein spacer lugs are pressed out of the middle stamped metal sheet on both sides and/or spacer lugs facing towards the middle stamped metal sheet are pressed out of the outer stamped metal sheets.

19. Method according to Claim 15, wherein spacer lugs are pressed out of the middle stamped metal sheet on both sides

and/or spacer lugs facing towards the middle stamped metal sheet are pressed out of the outer stamped metal sheets.

20. A gate plate for an automatic gear shift mechanism which has engagement holes for glidingly accommodating movable gear shift mechanism engagement elements, comprising:

at least three stamped metal sheet parts stacked together in sandwich form, each of said metal sheet parts including at least one engagement hole aligned with engagement holes in the other metal sheet parts,

and an elastomeric plastic cover provided to surround at least a portion of the engagement hole in a middle one of the metal sheet parts.

21. A gate plate according to Claim 20, wherein the stamped parts are riveted together.

22. A gate plate according to Claim 20, wherein the stamped parts are soldered together.

23. A gate plate according to Claim 20, wherein the stamped parts are welded together.

24. A gate plate according to Claim 20, wherein the elastomeric plastic cover is clicked into place on said metal part.

25. A gate plate according to Claim 20, wherein the elastomeric plastic cover is injection-moulded onto the middle part.

26. A method of making a gate plate for an automatic gear shift mechanism which has engagement holes for glidingly accommodating movable gear shift mechanism engagement elements, said method comprising:

stamping a plurality of metal sheet parts, including respective engagement holes in said metal sheet parts,

applying an elastomeric plastic cover to surround at least a portion of an engagement hole in a first of the metal sheet parts,

stacking said metal sheet parts to form a sandwich construction with said engagement holes aligned with one another and with said first metal sheet part disposed between two other of the sheet metal parts, and

non-detachably connecting the metal sheet parts
together.

27. A method according to Claim 26, wherein said applying
an elastomeric plastic cover includes forming a plastic cover
5 separate from the first metal sheet part and subsequently
connecting the cover by clamping onto the first metal sheet part.

28. A method according to Claim 26, wherein said applying
an elastomeric plastic cover includes injection-moulding plastic
onto the first metal sheet part.

10 29. A method according to Claim 26, wherein said non-
detachably connecting includes deformation of the plastic cover
to engage with the two other metal sheet parts and aid in
connecting the metal sheet parts together.

15 30. A method according to Claim 26, wherein said non-
detachably connecting includes riveting the metal sheet parts
together.

31. A method according to Claim 26, wherein said non-
detachably connecting includes soldering the metal sheet parts
together.

32. A method according to Claim 26, wherein said non-detachably connecting includes welding the metal sheet parts together.